

Anabaena in eutrophic conditions

Microorganisms have been used to aid in the cultivation of plants for centuries. One of these microorganisms is *Anabaena*, a genus of cyanobacteria that has been shown to enhance nitrogen fixation and grain yield in wetland rice fields. This project will investigate if increasing bacterial growth rate under eutrophic conditions (i.e., high phosphate) could potentially increase nitrogen fixation by *Anabaena*. Phosphorous concentration will be varied to determine the effect on growth rate as measured by changes in cell number and chlorophyll concentration. *Anabaena* can provide an organic, low cost and efficient way to provide a nitrogen source for agriculture.